21 July 2004

Mrs. Mary G. Korsnick Vice President R. E. Ginna Nuclear Power Plant R. E. Ginna Nuclear Power Plant, LLC 1503 Lake Road Ontario, NY 14519

# SUBJECT: R. E. GINNA NUCLEAR POWER PLANT- NRC INTEGRATED INSPECTION REPORT 50-244/04-003

Dear Mrs. Korsnick:

On June 30, 2004, the US Nuclear Regulatory Commission (NRC) completed an inspection at your R. E. Ginna facility. The enclosed integrated inspection report documents the inspection findings, which were discussed on July 8, 2004, with you and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

This report documents two NRC-identified findings of very low safety significance (Green). Both of these findings were determined to involve a violation of NRC requirements. However, because of their very low safety significance, and because they have been entered into your corrective action program, the NRC is treating these issues as non-cited violations, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny the non-cited violations noted in this report, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at the Ginna facility.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, and its enclosure, will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document management system (ADAMS). ADAMS is accessible from the NRC Website at <a href="http://www.nrc.gov/reading-rm/adams.html">http://www.nrc.gov/reading-rm/adams.html</a> (the Public Electronic Reading Room).

Sincerely,

#### /**RA**/

James M. Trapp, Chief Projects Branch 1 Division of Reactor Projects

Docket No. 50-244 License No. DPR-18

Enclosure: Inspection Report 50-244/04-03 w/ Attachment: Supplemental Information

cc w/encl:

M. J. Wallace, President, Constellation Generation

J. M. Heffley, Senior Vice President and Chief Nuclear Officer

P. Eddy, Electric Division, NYS Department of Public Service

C. Donaldson, Esquire, Assistant Attorney General, New York Department of Law

J. M. Petro, Jr., Esquire, Counsel, Constellation Energy Group, Inc.

P. R. Smith, New York State Energy Research and Development Authority

J. Spath, Program Director, New York State Energy Research and Development Authority

D. Stenger, Ballard, Spahr, Andrews and Ingersoll, LLP

T. Wideman, Director, Wayne County Emergency Management Office

M. Meisenzahl, Administrator, Monroe County, Office of Emergency Preparedness

T. Judson, Central New York Citizens Awareness Network

Mrs. Mary G. Korsnick

Distribution w/encl: (via E-mail) H. Miller, RA/J. Wiggins, DRA (1) C. Miller, RI EDO Coordinator R. Laufer, NRR R. Clark, PM, NRR P. Milano, PM, NRR (Backup) K. Kolaczyk, SRI Ginna M. Marshfield, RI, Ginna J. Trapp, DRP N. Perry, DRP Region I Docket Room (with concurrences)

Accession Number:

DOCUMENT NAME: C:\ORPCheckout\FileNET\ML042040341.wpd After declaring this document "An Official Agency Record" it <u>will</u> be released to the Public. **To receive a copy of this document, indicate in the box:** "**C**" = Copy without attachment/enclosure "**E**" = Copy with attachment/enclosure "**N**" = No copy

OFFICE	RI/DRP	Ν	RI/DRP	Ν		
NAME	KKolaczyk/JMT fo	r	JTrapp/ <b>JMT</b>			
DATE	07/21/04		07/21/04			

OFFICIAL RECORD COPY

# U.S. NUCLEAR REGULATORY COMMISSION

# **REGION I**

Docket No:	50-244
License No:	DPR-18
Report No:	05000244/2004003
Licensee:	Constellation Energy, R.E. Ginna Nuclear Power Plant, LLC
Facility:	R. E. Ginna Nuclear Power Plant
Location:	1503 Lake Road Ontario, New York 14519
Dates:	April 1, 2004 - June 30, 2004
Inspectors:	<ul> <li>K. Kolaczyk, Senior Resident Inspector</li> <li>M. Marshfield, Resident Inspector</li> <li>J. D'Antonio, Operations Engineer</li> <li>J. McFadden, Health Physicist</li> <li>S. Pindale, Senior Reactor Engineer</li> <li>D. Silk, Senior Emergency Preparedness Inspector</li> </ul>
Approved by:	James M. Trapp, Chief Projects Branch 1 Division of Reactor Projects

# CONTENTS

SUMMARY OF FINDINGS iii	
REACTOR SAFETY       1         1R01       Adverse Weather Protection       1         1R02       Evaluation of Changes, Tests, or Experiments       1         1R04       Equipment Alignment       3         1R05       Fire Protection       4         1R06       Flood Protection Measures       5         1R11       Licensed Operator Requalification Program       5         1R12       Maintenance Effectiveness       6         1R13       Maintenance Risk Assessments and Emergent Work Control       7         1R14       Operator Performance During Non-routine Plant Evolutions and Events       7         1R15       Operator Work-Arounds       8         1R19       Post-Maintenance Testing       9         1R22       Surveillance Testing       11         1R23       Temporary Plant Modifications       11         1R24       Alert and Notification System (ANS) Testing       12         1EP3       Emergency Action Level (EAL) and Emergency Plan Changes       13         1EP4       Emergency Action Level (EAL) and Emergency Plan Changes       13         1EP6       Drill Evaluation       14	
RADIATION SAFETY    14      2PS2    Radioactive Material Processing and Transportation    14	
OTHER ACTIVITIES       17         4OA1       Performance Indicator (PI) Verification       17         4OA2       Identification and Resolution of Problems       17         4OA5       Other Activities       20         4OA6       Meetings, Including Exit       20	
SUPPLEMENTAL INFORMATION A-1	
KEY POINTS OF CONTACT A-1	
LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED A-1	
LIST OF DOCUMENTS REVIEWED A-2	
LIST OF ACRONYMS A-8	

# SUMMARY OF FINDINGS

IR 05000244/2004003; 04/01/2004 - 06/30/2004; R. E. Ginna Nuclear Power Plant; Evaluation of Changes, Tests, or Experiments and Post Maintenance Testing.

The report covered a 3-month period of inspection by resident inspectors and announced inspections by regional specialists. This inspection identified two Green non-cited violations (NCVs). The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

## A. NRC-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

<u>Green</u>. The inspectors identified that contrary to the requirements of Technical Specification 5.4.1(b) and certain Ginna internal procedures, Ginna procedure A-503.1 "Emergency and Abnormal Operating Procedures Users Guide" allowed steps in Emergency Operation Procedures (EOP)s to be performed out of sequence under certain conditions without these step sequence deviations being evaluated and justified in the "Ginna Step Differences Evaluation Document."

This finding is associated with the procedure quality and preventing human performance errors attributes of the Mitigating Systems Cornerstone objectives. It is greater than minor, because procedures which have not been properly evaluated could provide incorrect guidance for operators during transient conditions. The finding is of very low safety significance because once the changes were evaluated by Ginna personnel, they were determined to be acceptable. Further the issue was not a design or qualification deficiency, it did not represent a loss of safety function, and was not potentially risk-significant due to seismic, flood, fire, or weather-related initiating event. (Section 1R02)

<u>Green</u>. The inspectors identified a non-cited violation for the licensee's failure to comply with 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings." This violation is related to inadequate procedures for assembling the mechanical seal for the turbine-driven auxiliary feedwater direct current (dc) lubricating oil pump.

This finding of inadequate maintenance procedures is greater than minor because if left uncorrected, it would become a more significant safety concern, and could result in degraded reliability of the turbine-driven auxiliary feedwater pump. The finding was determined to be of very low safety significance because the condition was identified and corrected before the pump became inoperable. Further, the issue was not a design or qualification deficiency, it did not represent a loss of safety function, and was not potentially risk-significant due to seismic, flood, fire, or weather-related initiating event. (Section 1R19) Summary of Findings (cont'd)

# B. Licensee-Identified Violations

None.

# REPORT DETAILS

## Summary of Plant Status

With the exception of minor power reductions to facilitate surveillance testing activities, Ginna operated at 100 percent power for the entire report period.

# 1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

## 1R01 Adverse Weather Protection (71111.01 - 1 Sample)

a. Inspection Scope

During the May 22-23 weekend, the Rochester area experienced significant rainfall, which caused flooding in several low-lying areas. As a result of the runoff created by the rainfall, the water levels in several streams close to the Ginna site rapidly increased including Deer Creek, which flows through the Ginna owner-controlled area. During the storm the water level in Deer Creek rose over the foot bridge to the training center and almost to the point of over-washing the access road to the plant. Because of the rapidly increasing water level in Deer Creek, control room operators conservatively entered ER-SC.2, "High Water Flood Plan." Although operators entered ER-SC.2, they did not have to implement any flood control measures since the water level stopped increasing. In response to high water conditions, the inspectors toured areas of the plant that are below ground level to ensure excessive water in-leakage had not occurred. Areas toured included the Screenhouse and Intermediate Building basements.

b. Findings

No findings of significance were identified.

- 1R02 Evaluation of Changes, Tests, or Experiments (71111.02 1 Sample)
- a. Inspection Scope

The inspector reviewed the Ginna Emergency Operating Procedures (EOP) background documents and the Ginna Emergency and Abnormal Operating Procedures (AOP) Users Guide. Changes to the EOPs were discussed with the Operations Manager and the individual responsible for maintaining the EOPs. The purpose of this review was to determine if changes to the EOP usage guide were in compliance with the facility's EOP maintenance program.

b. Findings

<u>Introduction</u>. A Green NCV of Technical Specification 5.4.1 was identified by the inspectors when they noted that changes to the EOPs were not justified in the EOP Step Difference Evaluation document.

<u>Description</u>. Westinghouse Pressurized Water Reactor (PWR) EOPs are based on the Westinghouse Owner's Group (WOG) Emergency Response Guidelines (ERG), which provide a step-by-step description of each EOP. Each plant used the guidelines to develop a set of plant-specific EOPs. Any safety-significant differences between the WOG ERGs and the plant-specific EOPs were to be justified and explained in a plant specific differences document. The "Ginna Step Difference Evaluation Document" lists the screening criteria to determine if changes are safety-significant and the criteria for a step difference justification. One of the safety significant screening criteria is "actions performed in a different sequence than permitted by the generic guidelines." Ginna procedures A-601.6, "Procedure Control of Emergency/ Abnormal Operating Procedures," and A-601.9, "EOP/ AOP Support Documentation Control," also identify step sequence changes as major changes requiring step justification.

Attachment 3 of Ginna Procedure A-503.1, "Emergency and Abnormal Operating Procedures Users Guide," discusses the concept of "anticipatory actions." These are mitigating actions taken after completion of EOP immediate actions, but before reaching an EOP step addressing these actions. A-503.1 provided a specific list of examples of such actions and a list of criteria for evaluating other such actions not specifically listed. As stated in A-503.1, these anticipatory actions included but were not limited to the following actions:

- Isolating feedwater to a faulted steam generator (SG).
- Throttling feedwater to 50 gallons per minute (GPM) to each SG when both SGs are faulted.
- Isolating feedwater to a ruptured SG when level is above the setpoint listed in E-3.
- Adjusting steam dump or atmospheric relief valves (ARV) to control T<sub>ave</sub>.
- Isolating letdown following a loss of charging line flow to the regenerative heat exchanger.
- Closing main steam isolation valves (MSIV) upon indication of a steamline break outside containment for personnel safety.

The facility did not consider the examples outlined in the users guide to constitute changes to the EOPs, and did not provide step difference justifications for these actions. This conclusion was not correct, because any operator who performed an anticipatory action will have deviated from the generic WOG EOP step sequence, and therefore such potential deviations should have been evaluated per the step difference justification guidance in the Step Difference Evaluation. In addition, the inspector noted the criteria outlined in A-503.1 would allow operators to determine anticipatory actions other than those specifically provided as examples. Such actions would preclude the possibility of performing the necessary step difference evaluation.

<u>Analysis</u>. The performance deficiency was Ginna's failure to justify "anticipatory actions" as EOP step differences when developing the concept of allowing deviations from the EOP step sequence via the users guide. Traditional enforcement does not apply because this issue did not have any actual safety consequences or potential for impacting the NRC's regulatory function, and was not the result of any willful violation of NRC requirements or Ginna procedures. This finding is greater than minor because it

affects the Mitigating Systems Cornerstone objectives of maintaining operating procedure quality and preventing human performance errors. This finding was evaluated using the Significance Determination Process (SDP) Phase 1 screening worksheet, Mitigating Systems column, and determined to be of very low safety significance because it does not represent any actual loss of safety function of any mitigating system or equipment.

<u>Enforcement.</u> Technical Specification (TS) 5.4.1(b) states, in part that: "Written procedures shall be established, implemented, and maintained covering . . . the emergency operating procedures . . . to implement the requirements of NUREG-0737 and NUREG-0737 supplement 1, as stated in Generic Letter 82-33." EOPs are controlled by several Ginna documents including A-601.6, "Procedure Control of Emergency/ Abnormal Operating Procedures," which categorizes step sequence changes as major changes, and A-601.9, "EOP/ AOP Support Documentation Control" which categorizes step sequence changes as a safety-significant deviation and the "Ginna Step Difference Evaluation Document," which also lists safety-significant differences.

Contrary to the requirements of A-601.6, A-601.9, and the Ginna Step Difference Evaluation Document, A-503.1 allowed deviations from the EOP step sequence for both particular steps described in the user's guide and for unspecified steps as determined by the crew. However, Ginna personnel did not prepare a step difference evaluation to justify why it was acceptable to perform these steps out of sequence. Because this failure to comply with the step deviation justification requirements is of very low safety significance and has been entered into the Corrective Action Program (CAP) as Action No. 2004-1017, "Anticipatory Action Justification Documentation," this violation is being treated as a non-cited violation (NCV) consistent with Section VI.A of the NRC Enforcement Policy: NCV 5000244/2004003-01, Failure to Evaluate Emergency Operating Procedure Step Differences.

- 1R04 Equipment Alignment (71111.04)
- a. Inspection Scope

Partial System Walkdowns. (71111.04Q - 4 samples)

The inspectors completed a walkdown of the "B" diesel generator when the "A" diesel generator was out of service for surveillance and maintenance activities. The condition of the "B" diesel generator was examined, because of its high risk significance. The inspection reviewed the alignment of system valves and electrical breakers to ensure proper in-service or standby configurations as described in plant procedures and drawings. During the walkdown, the inspectors evaluated the material condition and general housekeeping of the system and adjacent areas. The inspectors also verified that operations personnel were following the applicable plant Technical Specifications (TS).

The containment penetration cooling system was walked down to verify it was supplying sufficient air to maintain the temperature of the concrete adjacent to hot pipe penetrations less than 150 degrees Fahrenheit (°F). This system was examined because high penetration temperatures could lead to long-term degradation of the concrete, and to the possibility of an early failure of containment under certain accident scenarios. The inspection reviewed the alignment of the system valves and electrical breakers to ensure proper in-service and standby configurations were in place during the maintenance as described in plant procedures and drawings. The inspectors evaluated the material condition and general housekeeping of the system and adjacent areas.

The safety injection (SI) "A" and "C" trains were walked down while the "B" SI pump was out-of-service for planned maintenance. These trains were examined because of their high risk significance. The inspection reviewed the alignment of the train valves and electrical breakers to ensure proper in-service and standby configurations were in place during maintenance as described in plant procedures and drawings. The material condition and general housekeeping of the trains and adjacent areas were examined as part of the inspection. The inspectors verified that operations personnel were following the applicable plant TS.

The inspectors completed a walkdown of the off-site electrical power system. This system was reviewed to ensure the system was in good operating condition before summer weather conditions arrived. The inspection reviewed the alignment of the system breakers and conditions in the plant and transmission switchyards to ensure proper configurations as described in plant procedures and drawings. During the walkdown, inspectors evaluated the material condition and general housekeeping of the system and adjacent areas. The inspectors verified that operations personnel were following the applicable plant TS.

b. Findings

No findings of significance were identified.

- 1R05 Fire Protection (71111.05 8 samples)
- a. Inspection Scope

Using the Ginna Fire Protection program documents as a guide, the inspectors performed walkdowns of the following fire areas to determine if there was adequate control of transient combustibles and ignition sources. The material condition of fire protection systems, equipment and features, and the material condition of fire barriers were also inspected against industry standards. In addition, the passive fire protection features were inspected, including the ventilation system fire dampers, structural steel fire proofing, and electrical penetration seals. The following plant areas were inspected:

- Air Handling Room
- Screenhouse

- Charging Pump Room
- Battery Room "A"
- Battery Room "B"
- Control Room
- Intermediate Building Clean Side Basement
- Cable Tunnel

#### b. Findings

No findings of significance were identified.

#### 1R06 Flood Protection Measures (71111.06 - 1 sample)

a. Inspection Scope

To evaluate Ginna's external flood protection measures, the inspectors reviewed the Ginna Updated Final Safety Analysis Report (UFSAR) and procedures ER-SC.1, "Adverse Weather Plan," and ER-SC-2, "High Water Flood Plan." The inspectors toured the following areas to verify plant equipment and preparations:

- Screenhouse
- Turbine Building Basement
- Auxiliary Building Operating Floor
- Auxiliary Building Basement

During these tours, the inspectors evaluated the physical condition of penetration seals, pump pedestals, curbs, flood dikes, floor drains, and portable flood doors.

b. Findings

No findings of significance were identified.

## 1R11 Licensed Operator Regualification Program (71111.11 - 1 sample)

a. Inspection Scope

On April 12, 2004, the inspectors observed a licensed operator simulator scenario. The test observed was scenario ECA1112-10, "LOCA Outside Containment." The inspectors reviewed the critical tasks associated with the scenario, observed the operators' performance, and observed the post-evaluation critique. The inspectors also reviewed and verified compliance with Ginna Procedure OTG-2.2, "Simulator Examination Instructions."

b. <u>Findings</u>

No findings of significance were identified.

#### 1R12 Maintenance Effectiveness (71111.12 - 2 samples)

#### a. Inspection Scope

The inspectors evaluated the Ginna station's work practices and follow-up corrective actions for selected systems, structures, and components (SSC) issues to assess the effectiveness of maintenance activities. The inspectors reviewed the performance history of those SSCs and assessed extent of condition determinations performed by Ginna station personnel for those issues with potential common cause or generic implications to evaluate the adequacy of corrective actions. The inspectors reviewed problem identification and resolution actions for these issues identified by Ginna station personnel to evaluate whether they had appropriately monitored, evaluated, and dispositioned the issues in accordance with Ginna procedures and the requirements of 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance." In addition, the inspectors reviewed selected SSC classification, performance criteria and goals, and Ginna's corrective actions that were taken or planned, to verify whether the actions were reasonable and appropriate. The following issues were reviewed:

- The inner door seal for the containment personnel access hatch has failed four surveillance tests since startup from the October 2003 refueling outage. To date, several different corrective actions have been implemented, including replacing and adjusting the door seal to adjusting the door closing mechanism. The inspector discussed these corrective actions with engineering, maintenance and test personnel and reviewed surveillance test data. At the close of the report period, Ginna personnel had increased the test surveillance frequency on the inner door seal, in part to identify potential failure mechanisms.
- Several components in the boric acid system, particularly those in the boric acid flow path, have not operated reliably during the current operating cycle. To assess the adequacy of Ginna's corrective actions to address these issues, the system was reviewed by the inspectors and interviews were conducted with operators. Engineering responses to operator queries of system status were also reviewed.
- b. Findings

No findings of significance were identified.

- 1R13 <u>Maintenance Risk Assessments and Emergent Work Control</u> (71111.13 4 samples)
- a. <u>Inspection Scope</u>

The inspectors evaluated the effectiveness of Ginna's maintenance risk assessments required by paragraph a(4) of 10 CFR 50.65. This inspection included discussions with control room operators and scheduling department personnel regarding the use of Ginna's online risk monitoring software. The inspectors reviewed equipment tracking documentation and daily work schedules, and performed plant tours to gain assurance

that actual plant configuration matched the assessed configuration. Additionally, the inspectors verified that risk management actions implemented by Ginna station personnel for both planned and/ or emergent work, were consistent with those described in Procedure IP-PSH-2, "Integrated Work Schedule Risk Management." Risk assessments for the following out-of-service systems, structures, and/ or components were reviewed:

- Planned maintenance on the control room supply and exhaust fans (April 8, 2004).
- Unplanned maintenance on the "D" standby auxiliary feedwater pump suction valve (April 7, 2004).
- Unplanned maintenance on the main station transformer cooling fans (June 1, 2004).
- Planned maintenance to remove foreign material in the "A" spent fuel pool heat exchanger (May 11, 2004).

# b. Findings

No findings of significance were identified.

# 1R14 <u>Operator Performance During Non-routine Plant Evolutions and Events</u> (71111.14 - 1 sample)

a. Inspection Scope

On April 16, 2004, at 7:40 a.m., the normally dry, intermediate building cable tray sprinkler system was inadvertently filled with water when a valve in the system's actuation mechanism was inadvertently struck and repositioned by cleaning personnel. Although the sprinkler system was filled with water, flow from the sprinkler heads did not occur, since the thermal links on the sprinkler heads remained intact. Operators were alerted to the inadvertent actuation when several control room alarms annunciated. The inspector was in the control room when the event occurred, and verified operators utilized the appropriate fire response procedures to diagnose and correct the condition. Further, the inspector verified that the fire brigade's response to the alarm was timely.

# b. Findings

No findings of significance were identified.

# 1R15 Operability Evaluations (71111.15 - 4 samples)

## a. Inspection Scope

The inspectors reviewed operability determinations to verify that the operability of systems important to safety was properly established, that the affected components or systems remained capable of performing their intended safety functions, and that no unrecognized increase in plant or public risk occurred. In addition, the inspectors reviewed the following operability evaluations to determine if system operability was properly justified in accordance with Procedure IP-CAP-1.1, "Technical Evaluation for Current Operability and Past Operability Determination Worksheet":

- Action Report (AR) 2004-1128, "Contamination on Valves 860A, 860B. 860C And 860D,"
- AR 2004-1405, "Water Leakage on Northeast Corner Ceiling Tiles in Control Room,"
- AR 2004-1491, "Recirculation Fan Coolers Raychem Splices Are Not Per Design,"
- AR 2004-1634, "Gaps in the Control Room Emergency Zone."
- b. <u>Findings</u>

No findings of significance were identified.

## 1R16 Operator Work-Arounds (71111.16 - 1 sample)

a. <u>Inspection Scope</u>

The inspectors conducted a control room walkdown, interviewed operators, and toured the plant with auxiliary operators to identify operator work-arounds. The inspectors reviewed control room deficiencies, maintenance identification tags on main control boards, degraded conditions on equipment important to safety, temporary alterations, Ginna-identified operator work-arounds and operator challenges, and selected corrective action reports. The inspectors compared their observations to the requirements in A-52.16, "Operator Work-around & Challenge Control," including Attachments 3, 4, and 5.

The inspectors evaluated the operators' ability to implement normal, off-normal, and emergency operating procedures with the existing equipment deficiencies. The inspectors also determine whether the functional capability of a system or operator response to an initiating event would be adversely affected. In addition, the inspectors evaluated the cumulative and synergistic effects of the identified operator work-arounds to determine whether there was an effect on multiple mitigating systems.

# b. Findings

No findings of significance were identified.

# 1R19 Post-Maintenance Testing (71111.19 - 5 samples)

## a. Inspection Scope

The inspectors reviewed post-maintenance tests for the following activities to verify that Ginna personnel appropriately demonstrated the components' ability to perform their intended safety function as described in the plant UFSAR.

- PT-22.2 "Containment Personnel Hatch Door Seal Leak Test"
- Work Order (WO) 20402737, "Charging Pump A Leak Rate Increased to .5GPM Following Re-pack Under WO 20402671"
- WO 20401460, "Mechanical Seal Has a Minor Leak When Running"
- PT-2.7.1, "Service Water Pumps" **Pump A retest after maintenance**
- WO 20400928, "V-961C Leaks at Packing, Replace Valve and 90 Degree Elbow as Needed"

# b. Findings

<u>Introduction</u>. A Green NCV violation was identified for an inadequate maintenance procedure for assembling the mechanical seal for the turbine-driven auxiliary feedwater direct current (dc) lubricating oil pump, as prescribed in 10 CFR 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings.

Description. The turbine-driven auxiliary feedwater pump at Ginna has two lubricating oil pumps - a dc powered pump that is normally in standby, and an alternating current (ac) lube oil pump that is normally operating. The dc powered pump serves as a backup to the ac pump in the event the pump does not operate because of mechanical or electrical failure. The dc pump is tested quarterly during the performance of surveillance test PT-16Q-T, "Auxiliary Feedwater Turbine Pump - Quarterly." In March 2004, an oil leak from the dc pump mechanical seal was observed during the performance of surveillance test PT-16Q-T. This condition was documented in Action Report (AR) 2004-0695, "TDAFW Pump Has a Seal Leak." Seal oil leakage was also observed during the next performance of surveillance test PT-16Q-T in May 2004. Because the seal leakage appeared to increase during this surveillance test. Ginna engineering personnel prepared an operability assessment that concluded that the seal leakage, that was estimated to be less than one guart/ hour, would not prevent the pump from performing its intended safety function. Notwithstanding the conclusions in the operability assessment, Ginna personnel decided to expedite replacement of the pump because of the increased leakage.

On June 16, 2004, the pump was replaced by maintenance personnel. During this activity, the inspectors and Ginna personnel examined the mechanical seal on the removed pump and determined the seal leakage was attributed to the fact that the seal

was missing both an O-ring and the ring mating guide. This condition was documented in AR2004-1599, "Pump Incorrectly Assembled." A preliminary Ginna investigation determined the seal was incorrectly assembled during the Fall 2003 refueling outage, when the pump was rebuilt by maintenance personnel as part of a planned maintenance activity. The rebuilt seal passed post-maintenance testing conducted in October 2003. As run time on the seal increased during subsequent surveillance tests, the installed seal components began to degrade and leakage occurred.

The pump was rebuilt using Procedure M-11.23, "Worthington Double-Helical Rotary Pump Inspection and Maintenance." The inspector reviewed M-11.23 and determined the procedure and accompanying reference material did not contain detailed maintenance instructions for refurbishment of the lube oil pump. Specifically, Step 5.1.9 of procedure M-11.23 directed maintenance personnel to "Perform required maintenance to pump as per approved reference for pump being worked." However, the approved reference for the pump was a vendor document that did not contain a drawing of the seal or detailed instructions on how to assemble the mechanical seal.

<u>Analysis</u>. The deficiency associated with this event was a failure of the Ginna maintenance department to have documented instructions, procedures, or drawings appropriate to the circumstances. Because of this inadequacy, the mechanical seal for the dc lube oil pump was not properly assembled during the fall 2003 refueling outage. This finding resulted in reduced reliability of the turbine-driven auxiliary feedwater pump a risk significant safety component. Traditional enforcement does not apply because the issue did not have any actual safety consequences or potential for impacting the NRC's regulatory function and was not the result of any willful violation of NRC requirements or Ginna procedures. This finding was greater than minor because if left uncorrected the finding would become a more significant safety concern. This finding, which is under the Mitigating Systems Cornerstone, was of very low safety significance because the condition was identified and corrected before the oil leak became excessive and the pump became inoperable.

In accordance with Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the inspectors conducted an SDP Phase 1 screening and determined that the finding is of very low safety significance (Green). Using the Reactor Safety SDP, this finding screened to Green and was of very low safety significance, because it was not a design or qualification deficiency, it did not represent a loss of safety function, and was not potentially risk-significant due to seismic, flood, fire, or weather-related initiating event.

<u>Enforcement</u>. 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings" states, in part that, "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances. . .." Contrary to the above, Procedure M-11.23 did not provide adequate guidance for replacement of the mechanical seal for the dc lube oil pump. As a result, when the seal was replaced during the fall 2003 refueling outage, it was not properly assembled. Because the condition was repaired before the pump was rendered inoperable, and this self revealing condition has been entered into the Ginna station

corrective action program in Action Report 2004-1599, this violation is being treated as an NCV, consistent with Section VI.A of the NRC Enforcement Policy: NCV 05000244/2004003-02, Inadequate Procedural Guidance for Auxiliary Feedwater Pump Maintenance Activities.

## 1R22 <u>Surveillance Testing</u> (71111.22 - 4 samples)

#### a. Inspection Scope

The inspectors witnessed the performance and/or reviewed test data for the following four surveillance tests that are associated with selected risk-significant systems, structures, and components (SSCs) to verify that TS were followed, and that acceptance criteria were properly specified. The inspectors also verified that proper test conditions were established as specified in the procedures, that no equipment preconditioning activities occurred, and that acceptance criteria had been met.

- VT-113, Visual Examination of Class CC Concrete Components (IWL) (May 20, 2004).
- IP-HSC-3, Housekeeping Control (May 21, 2004).
- PT-13, Fire Pump Operation and System Alignment (April 16, 2004).
- PT-16Q-T, Auxiliary Feedwater Turbine Pump Quarterly (May 18, 2004).

#### b. Findings

No findings of significance were identified.

## 1R23 <u>Temporary Plant Modifications</u> (71111.23 - 1 sample)

a. Inspection Scope

The following temporary modification was reviewed by the inspectors to verify it was installed in conformance with the instructions contained in procedure IP-DES-3, "Temporary Modifications":

• 2004-0004, "Control Room Supply Air Fan (AKF03) Bearing Modification"

#### b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

#### 1EP2 <u>Alert and Notification System (ANS) Testing</u> (71114.02 - 1 sample)

#### a. Inspection Scope

An onsite review of Ginna's Public Notification System (PNS) was conducted to ensure prompt notification of the public for taking protective actions. The inspector interviewed the siren system engineer and reviewed test records from 2003 and 2004 and associated Action Reports (AR) to determine if test failures were being immediately assessed and repaired and sirens were being routinely maintained. The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 02, and the applicable planning standard, 10 CFR 50.47(b)(5) and its related 10 CFR 50, Appendix E requirements were used as reference criteria.

b. Findings

No findings of significance were identified.

#### 1EP3 <u>Emergency Response Organization (ERO) Augmentation</u> (71114.03 - 1 sample)

a. Inspection Scope

An onsite review of Ginna's ERO augmentation staffing requirements and the process for notifying the ERO was conducted to ensure the readiness of key staff for responding to an event and timely facility activation. The inspector reviewed ERO response activities (drills and actual events) in 2003 and 2004 and the associated ARs. Emergency plan qualification records were sampled for key ERO positions to ensure that qualifications were current. The method of ensuring that Ginna meets on-shift staffing for the shift technical advisor position during outages was reviewed. The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 03, and the applicable planning standard, 10 CFR 50.47(b)(2) and its related 10 CFR 50, Appendix E requirements were used as reference criteria.

b. Findings

No findings of significance were identified.

#### 1EP4 Emergency Action Level (EAL) and Emergency Plan Changes (71114.04 - 1 sample)

#### a. Inspection Scope

During this inspection, the inspector sampled Ginna assessments for decreases in the effectiveness for recent changes to emergency preparedness documents. Also, a regional in-office review was conducted of Ginna-submitted revisions to several implementing procedures by the NRC during this inspection. A thorough review was conducted of plan aspects related to the risk-significant planning standards (RSPS), such as classifications, notifications, and protective action recommendations. A cursory review was conducted for non-RSPS portions. During the inspection, the inspector evaluated the associated 10 CFR 50.54(q) reviews to determine if the changes had decreased the effectiveness of the plan. The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 04, and the applicable requirements in 10 CFR 50.54(q) were used as reference criteria.

b. Findings

No findings of significance were identified.

- 1EP5 <u>Correction of Emergency Preparedness Weaknesses and Deficiencies</u> (71114.05 1 sample)
- a. Inspection Scope

The inspector reviewed ARs initiated by Ginna from drills, tests, self-assessments, and actual events and the associated corrective actions to determine the significance of the issues and to determine if repeat problems were occurring. A list of ARs are contained in an attachment to this report. Also, the 2002 audit report was reviewed to assess Ginna's ability to identify issues, assess repetitive issues, and the effectiveness of corrective actions through their independent audit process. In addition, the inspector reviewed several 2003 and 2004 self-assessment reports to assess Ginna's ability to be self critical for avoiding complacency and making program improvements. A list of self-assessment reports are contained in an attachment to this report. Finally, apparent cause evaluation reports were reviewed to assess Ginna's capability to determine and evaluate the root causes of significant issues for preventing recurrence. This inspection was conducted according to NRC Inspection Procedure 71114, Attachment 05, and the applicable planning standard, 10 CFR 50.47(b)(14) and its related 10 CFR 50, Appendix E requirements were used as reference criteria.

b. Findings

No findings of significance were identified.

# 1EP6 Drill Evaluation (71114.06 -1 sample)

# a. Inspection Scope

On April 13, 2004, the inspectors observed a licensed operator simulator scenario that included a limited test of the Ginna emergency response plan. Scenario ECA1112-10, "LOCA Outside of Containment," was observed. During the exercise, the crew did not classify the event in a timely manner, and as a result, this drill was counted as a failure in the Ginna "Drill/ Exercise Performance" indicator.

# b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

# 2PS2 Radioactive Material Processing and Transportation (71122.02 - 6 samples)

a. Inspection Scope

The inspector reviewed the radioactive material processing and transportation work activities and practices during tours of the facilities, discussed observations and issues with site representatives, and inspected procedures, procedural implementation, records, and other program documents to evaluate the effectiveness of performance in this area. This inspection activity represents the completion of six (6) samples relative to this inspection area in complete fulfillment of the biennial inspection requirements.

Inspection Planning and In-Office Inspection (02.01.a and b)(1 Sample)

The inspector reviewed the solid radioactive waste system description in the Updated Final Safety Analysis Report (UFSAR) and the most recent radiological effluent release report for information on the types and amounts of radioactive waste disposed. The inspector also reviewed the scope of the site's most recent audit of the radioactive waste processing and transportation function to verify that the audit program met the requirements of 10 CFR 20.1101(c).

# Radioactive waste system walkdown (02.02.a thru d)(1 Sample)

The inspector walked down selected accessible portions of the station's radioactive liquid and radioactive solid waste collection, processing, and storage systems/ locations to verify that the current system configuration and operation agreed with descriptions contained within the UFSAR and the Process Control Program (PCP). The areas reviewed during the walkdowns included buildings/ areas within the radiologically-controlled and protected areas (including the intermediate and auxiliary buildings within the main radiologically controlled area (RCA) and areas outside the

main RCA including the upper radioactive waste storage building and the dry radioactive waste storage area.

During system walkdowns on May 18 and 20, and during discussions with radioactive waste processing and shipping personnel, the inspector reviewed the status of nonoperational and/ or abandoned-in-place radioactive waste process equipment and administrative and physical controls for the systems. The inspector also reviewed the adequacy of any changes to the radioactive waste processing systems since the last inspection in this area, and the potential radiological impact, and reviewed the current processes for transferring radioactive waste resin and filter cartridges into shipping/ disposal containers and for resin dewatering.

#### Waste characterization and classification (02.03.a and b)(1 Sample)

The inspection included a review of conformance with applicable waste characterization and classification regulations and program procedures. This included a selective review of the radiochemical sample analysis results for each of the tracked radioactive waste streams and the development of scaling factors for difficult-to-detect-and-measure radionuclides. The inspector also verified that programmatic elements were in place to ensure that determination of waste classification (10 CFR 61.55) and of waste characteristics (10 CFR 61.56) was adequate and that the waste stream composition data accounts for changing operational parameters.

#### Shipment preparation (02.04.a and b)(1 Sample)

Based on the scheduled radioactive waste processing and shipment activities, the inspector had limited opportunity to observe shipment preparation from initial packaging through final readiness for shipment. However, on May 19, the inspector did observe the loading and shipment of a radioactively-contaminated storage tank as waste. Based on this observation, on the review of shipment records, radioactive waste program documents, shipment preparation procedures, and the technical instructions presented to workers during routine training, and on discussions with radioactive waste processing and shipping personnel, the inspector was able to assess the adequacy of shipment preparation activities from initial packaging to shipment readiness and to determine that shipping personnel were knowledgeable of NRC and Department of Transportation (DOT) shipping regulations.

## Shipping records (02.05)(1 Sample)

The inspector examined the shipping records for five non-excepted packages including two Low Specific Activity (LSA II) type shipments, one Surface-Contaminated-Object (SCO II) type shipment, one Type A (Yellow II) shipment, and one Type B (Yellow III) shipment. The inspector reviewed these records for compliance with NRC and DOT requirements, including shipment paper and description requirements, shipper's certification, proper use of forms, package marking and labeling, vehicle placarding, emergency response information, and packaging requirements.

# Identification and resolution of problems (02.06.a thru c)(1 Sample)

The inspection included a selective review of audits and self-assessments related to the radioactive waste processing and transportation programs performed since the last inspection in this area. The inspector also reviewed selected Action Reports (ARs) and their corrective actions for issues related to the inspected area. Specifics regarding the corrective action program are addressed in Section 40A2 of this report.

## **Related Activities**

During this inspection, the inspectors reviewed the status of the level-indicating gauges for the spent resin storage tanks, the inventory logs for the spent resin storage tanks referenced in operating procedures, the inventory logs for the spent resin storage tanks kept by the chemistry group, and the fencing around the seal injection filters which was posted and controlled as a locked high radiation area.

During the review of the areas, which are listed above under inspection scope, the inspector performed a selective examination of procedures, records, and documents (as listed in the List of Documents Reviewed section) for regulatory compliance and adequacy.

The above review was against criteria contained in: 10 Code of Federal Regulations (CFR) Part 20: Subpart F (Surveys and monitoring); 10 CFR 20.1902 (Posting requirements); Subpart I (Storage and control of licensed material); Subpart K (Waste disposal); Appendix G to Part 20 (Requirements for transfers of low-level radioactive waste intended for disposal at licensed land disposal facilities and manifests); 10 CFR 61.55, Waste classification; 10 CFR 61.56, Waste characteristics; 10 CFR 61.57, Labeling; 10 CFR 71, Packaging and transportation of radioactive material; 49 CFR 172 (Hazardous materials table, special provisions, hazardous-materials communications, emergency response information, and training requirements); 49 CFR 173 (Subpart I-Class 7 (radioactive) materials); 49 CFR 177 (Carriage by public highway); NRC Bulletin 79-19; and site procedures.

## b. Findings

No findings of significance were identified.

#### 4. OTHER ACTIVITIES

- 4OA1 Performance Indicator (PI) Verification (71151)
- 1. <u>Mitigating Systems Cornerstone</u> (71151 1 sample)
- a. Inspection Scope

Using the criteria specified in Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 2, the inspectors verified the completeness and accuracy of the performance data for residual heat removal (RHR) system unavailability for the period of January 2003 to April 2004. To verify the accuracy of the data the inspector reviewed monthly operating reports, NRC inspection reports, Ginna system action reports, and operator logs.

b. Findings

No findings of significance were identified.

- 2. <u>Barrier Integrity Cornerstone</u> (71151 2 samples)
- a. <u>Inspection Scope</u>

Using the criteria specified in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 2, the inspectors verified the completeness and accuracy of the performance data for reactor coolant system (RCS) specific activity and RCSidentified leak rate for the period of January 2003 to April 2004. To verify the accuracy of the data the inspector reviewed monthly operating reports, NRC inspection reports, Ginna system action reports, and operator logs. A chemistry technician was observed taking and analyzing an RCS sample. The process for determining RCS leak rate was reviewed and observed to determine operator knowledge of the process.

b. <u>Findings</u>

No findings of significance were identified.

- 4OA2 Identification and Resolution of Problems (71152 1 sample)
- 1. <u>Public Radiation Safety</u>
- a. <u>Inspection Scope</u>

The inspector selected seven issues identified in the Corrective Action Program (CAP) for detailed review. The issues were associated with storage of radioactive waste records, outside storage for radioactive material, fall protection during work on shipping casks, pre-job briefings, communication equipment, contamination events during transfer of spent primary resin, and radioactive source inventory. The documented

reports for the issues were reviewed to ensure that the full extent of the issues was identified, an appropriate evaluation was performed, and appropriate corrective actions were specified and prioritized.

b. Findings and Observations

No findings of significance were identified.

- 2. <u>Corrective Action Review by Resident Inspectors</u>
- a. Inspection Scope

#### Continuous Review

As required by Inspection Procedure 71152, "Identification and Resolution of Problems," and in order to help identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the Ginna corrective action program. This review was accomplished by reviewing paper copies of each condition report, attending daily screening meetings and accessing Ginna's computerized database.

#### Semi-Annual Review

In an effort to identify trends where Ginna personnel have not implemented effective corrective action to prevent recurrence of equipment performance issues, the inspectors conducted a screening review of all ARs initiated since July 2002. Based upon that initial review, and the inspector's knowledge of the plant, several ARs that documented performance issues associated with containment cable splices and the personnel access hatch were selected for detailed followup. Through review of the ARs, and discussions with engineering personnel, the inspectors concluded that Ginna personnel were aware of the concerns documented in the ARs, and were in the process of implementing adequate corrective action to resolve the performance issues.

b. Findings and Observations

No findings of significance were identified.

- 3. <u>Human Performance Sample Review</u> (71152 1 sample)
- a. Inspection Scope

The inspector selected a Ginna self-assessment for detailed review (#2004-00001, "Collective Review of Human Performance Events in 4th Quarter 2003"). The inspector selected this assessment because it was intended to collectively assess humanperformance-related events and develop corrective actions to abate concerns in human performance at the station. Ginna conducted this self-assessment using methodology and criteria as defined in industry accepted guidance. The self-assessment included over 30 Action Reports (AR) for detailed review and evaluation. Some of the noteworthy ARs subject to the self-assessment review were as follows:

•	AR 2002-0697	"Near Miss - Attempted to Close Incorrect Breaker"
•	AR 2003-1821	"Motor Driven Auxiliary Feedwater Pump Damage Due to
		Human Performance Issues"
•	AR 2003-2372	"Inadvertent Safety Injection Signal on 'A' Train"
•	AR 2003-2573	"Both Emergency Diesel Generators Started During Safety
		Injection Functional Testing"
•	AR 2003-2703	"Turbine Driven Auxiliary Feedwater Pump Valve Found
		Out of Position"

The inspector reviewed the self-assessment report and the associated recommended corrective actions, including current status of the planned corrective actions. The inspector also discussed the self-assessment details with the responsible individuals (self-assessment team leader, and corrective action program personnel).

#### b. Findings and Observations

No findings were identified associated with this annual sample review. The self-assessment team consisted of both Ginna personnel and representatives from other fleet and peer industry stations. After reviewing the self-assessment and associated corrective actions, the inspector determined that the self-assessment constituted a thorough review of relevant ARs, and the assessment was sufficiently self-critical.

Notwithstanding the acceptable quality of the self-assessment and associated corrective actions, the inspector noted that several consequential human performance events of a similar nature (relative to cause) continued to occur subsequent to the completion of the self-assessment, and this was discussed with Ginna personnel. While the inspector acknowledged that all planned corrective actions have not been completed, continued and aggressive oversight of station human performance is needed to measure the effectiveness of the self-assessment and associated corrective actions.

## 4OA5 Other Activities

# 1. Offsite Power System Operational Readiness (Temporary Instruction 2515/156)

a. Inspection Scope

The inspectors performed Temporary Instruction 2515/156, Offsite Power System Operational Readiness. The inspectors collected and reviewed information pertaining to the offsite power system specifically relating to the areas of the maintenance rule (10 CFR 50.65), the station blackout rule (10 CFR 50.63), offsite power operability, and corrective actions. The inspector reviewed this data against the requirements of 10 CFR 50 Appendix A General Design Criterion 17, Electric Power Systems, and Plant Technical Specifications. This information was forwarded to the office of Nuclear Reactor Regulation (NRR) for further review.

b. Findings

No findings of significance were identified

4OA6 Meetings, Including Exit

Periodically during the course of this inspection, the inspectors met with Ginna representatives to discuss certain aspects of the inspection. For example, an NRC inspector from the Region 1 office discussed EOP maintenance requirements and the finding of failure to perform the EOP step difference justification with Mr. Peter Bamford on April 8, 2004.

On July 8, 2004, the resident inspectors presented the inspection results to Mrs. M. Korsnick and other members of her staff. The inspectors returned any proprietary items, and verified that no proprietary information is presented in this inspection report.

# ATTACHMENT: SUPPLEMENTAL INFORMATION

# A-1

## **SUPPLEMENTAL INFORMATION**

# **KEY POINTS OF CONTACT**

#### Licensee personnel

P. Bamford F. Cordaro	Operations Manager Onsite Emergency Planner
B. Flynn	Primary Systems and Reactor Engineering Manager
M. Harrison	Foreman, Radwaste Operations
J. Hotchkiss	Mechanical Maintenance Manager
M. Korsnick	Vice President
R. Marchionda	Nuclear Assessment Department Manager
R. Ploof	Scheduling Manager
P. Polfleit	Corporate Nuclear Emergency Planner
R. Popp	Production Superintendent
P. Sidelinger	EOP Coordinator
J. Smith	Maintenance Superintendent
W. Thomson	Manager, Radiation Protection
T. White	Balance of Plant Systems Engineering Manager
J. Widay	Plant Manager
G. Wrobel	Nuclear Safety & Licensing Manager

# LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

<u>Opened</u>

None

Opened and Closed

05000244/2004003-01	NCV	Failure to Evaluate Emergency Operating Procedure Step Differences

05000244/2004003-02 NCV Adequate Guidance Was Not Provided for Maintenance Activities

<u>Closed</u>

None

<u>Discussed</u>

None

Attachment

# A-2

# LIST OF DOCUMENTS REVIEWED

# Section 1R01: Adverse Weather Protection

## **Document**

ER-SC.2 "High Water Flood Plan"

# Section 1R02: Evaluation of Changes, Tests, or Experiments

#### **Documents**

A-601.6 Procedure Control of Emergency/Abnormal Operating Procedures. A-601.9 EOP/AOP Support Documentation Control Westinghouse Emergency Response Guidelines Rev 1c Executive Volume. Ginna EOP Step Difference Evaluation revision 7-06-89 Procedure A-503.1 "Emergency and Abnormal Operating Procedures Users Guide" Rev 35 Action No 2004-1017 "Anticipatory Action Justification Documentation" PCN 2004-3001 procedure change notice for procedure A-503.1

## Section 1R04: Equipment Alignment

## Action Report

AR 2004-1128 Contamination Found in Clean Area (CS Pumps. 860 Valves)

## Section 1R05: Fire Protection

#### Action Reports

AR 2004-1128 Contamination Found in Clean Area (CS Pumps. 860 Valves) AR 2004-1233 Damper Fire Link Failed, Damper Shut

## Section 1R12: Maintenance Rule Implementation

#### Action Reports

AR 2004-0473Digital Display on Boric Acid Integrator was CyclingAR 2004-0969MCB Boric Acid Integrator LED Readout Goes Blank

#### Section 1R13: Maintenance Risk Assessments and Emergent Work Evaluation

#### Action Reports

AR 2004-0972	MOV-9629B Did not Open from MCB
AR 2004-0999	Root Cause Evidence Disturbed Prior to Troubleshooting

#### Document

M-64.2EQ Limitorque SMB-000 and SMB-00 Motor Actuator Maintenance Procedure

#### Work Orders

20402674	Main Station Transformer Cooling Fans
20402451	Foreign Material Found in Shell Side of SFP A HX
20402114	MOV 9629B Failed to Open

#### Section 1R15: Operability Evaluations

#### Action Reports

AR 2004-1128	Contamination on Valves 860A, 860B. 860C And 860D"
AR 2004-1405	Water Leakage on Northeast Corner Ceiling Tiles in Control Room"
AR 2004-1491	Recirculation Fan Coolers Raychem Splices Are Not Per Design"
AR 2004-1634	Gaps in the Control Room Emergency Zone"

## Section 1R19: Post-Maintenance Testing

#### Work Orders

WO 20402737, Charging Pump A Leak Rate Increased to .5 GPM Following Repack Under WO 20402671 WO 20400928, V-961C Leaks at Packing, Replace Valve and 90 Degree Elbow as Needed

## Section 1R22: Surveillance Testing

#### **Documents**

PT-16Q-T, "Auxiliary Feedwater Turbine Pump - Quarterly" test results P&ID 33013-1237, "Auxiliary Feedwater (FW)" PT-13, "Fire Pump Operation and System Alignment"

## Section 1EP2: Alert and Notification System (ANS) Testing

Procedures

EPIP 4-8, Silent Testing of the Ginna Sirens from the Technical Support Center, Rev 5 EPIP 4-9, Activation of the Ginna Emergency Sirens from the Technical Support Center, Rev 2 EPIP 4-10, Silent Testing of the Ginna Sirens from the County Activation Points, Rev 4 EPIP 4-11, Activation of the Ginna Sirens from the County Activation Points, Rev 1

## Section 1EP3: Emergency Response Organization (ERO) Augmentation Testing

#### **Documents and Procedures**

EPIP 1-5, Notifications, Rev 59
CH-PRI-OFFNORM, Radiation Protection Shift Technician Activities for Off-Normal Plant Operating Conditions, Rev 8
Nuclear Training Program Manual, Training Program Description No. TR-C.22, Nuclear Emergency Response Plan Training Program, Rev 11
Nuclear Emergency Response Plan, Section 7.0, Maintaining Emergency Preparedness, Rev 22
O-1.1, Plant Heatup from Cold Shutdown to Hot Shutdown, Rev 148
O-2.2, Plant Shutdown from Hot Shutdown to Cold Shutdown, Rev 132
OPG-PWQ, Position Qualified to Work List, Rev 28
Augmentation Drill Results:
May 8, 2003, Mustering Drill
September 11, 2003, Call-in Test
December 11, 2003, Call-in Test
March 8, 2004, ERO Call-in Test

## Section 1EP4: Emergency Action Level (EAL) Revision Review

Procedure Changes

PCN 2003-1442 PCN 2003-T-0113 PCN 2003-1422 PCN 2003-1455 PCN 2003-1423 PCN 2003-1440

#### Section 1EP5: Correction of Emergency Preparedness Weaknesses and Deficiencies

Action Reports

AR 2004-1215 AR 2004-0197 AR 2004-0509 AR 2003-0013 AR 2003-0979 AR 2003-1009 AR 2003-3324

Self Assessments/ Audits

Self-Assessment 2002-0047 SQUA-2004-0020-DHK SQUA-2004-0023-EMS SQUA-2003-0058-ERD SQUA-2003-0051-ERD SQUA-2003-0023-EDK

## Section 2PS2: Radioactive Material Processing and Transportation

**Documents** 

Updated Final Safety Analysis Report for Ginna Station, Chapter 11, Radioactive waste management

Annual radioactive effluent release report for 2002

Audit report for process control program and radwaste shipping, AINT-2002-0013-HMG, October 17, 2002

Updated Final Safety Analysis Report for Ginna Station

Shipment No. 2002-39, Type B package, Yellow III label, primary bead resin waste

Shipment No. 2003-40, SCO II package, contaminated equipment

Shipment No. 2004-06, LSA II package, dry active waste, etc.

Shipment No. 2004-07, Type A package, Yellow II label, radioactive samples

Shipment No. 2004-13, LSA II package, contaminated resin liner

Audit report for process control program and radwaste shipping, AINT-2002-0013-HMG, October 17, 2002

QA surveillance report SQUA-2004-0032-OTT, Radioactive waste shipping radiological boundary control

QC report SVIN-2004-0145-WEB, DAW shipment

RP Program ongoing self-assessment, First quarter 2004 report, April 25, 2004

Self-assessment to review methodology and requirements for changing plant filters (radioactive only), SA 2003-003, December 1, 2003

Benchmarking report, hazardous material transportation and security, March 23, 2004 Benchmarking report, old reactor pressure vessel head disposal, January 30, 2004

## Procedures

Procedure RPA-RW-PCP, Rev. 9, Process control program

Procedure S-4.5.7A, Rev. 17, Letdown mixed bed demineralizer A resin replacement Procedure S-4.5.7B, Rev. 20, Letdown mixed bed demineralizer B resin replacement Procedure S-4.5.10, Rev. 17, Letdown deborating demineralizer A cation resin replacement Procedure S-4.5.11, Rev. 18, Letdown deborating demineralizer B cation resin replacement Procedure RPA-RW-COMP, Rev. 7, 10 CFR Part 61 Waste classification compliance program Procedure RPA-RW-COMP-CFR61, Rev. 5, 10 CFR 61 Waste classification methodology and acceptance criteria documentation PCP

Procedure RPA-RW-PCP, Rev. 9, Process control program

Procedure CHA-FUEL-FAILURE, Rev. 1, Failed fuel response

Procedure IP-NFM-2, Rev. 3, Fuel integrity monitoring program

Procedure RPA-RW-SHIP-MTL, Rev. 5, Shipment of radioactive material-general guidance Procedure RPA-RW-SHIP-WSTE, Rev. 1, Preparation and shipment of radioactive (waste) material

Procedure RPA-RW-TRNG, Rev. 3, Training and responsibilities of individuals involved in radwaste group activities

# <u>Other</u>

Scaling factors for 2003 dry active waste, reactor coolant filters, high conductivity waste tank filters, spent fuel pool skimmer filters, and seal injection filters

Characterization and classification of the Ginna reactor pressure vessel head and control rod drive mechanism boxes

Certificate of compliance for radioactive material package, Certificate No. 9168, Rev. 13,

package identification no. USA/9168/B(U), Model no. CNS 8-120B

Four-Day radioactive hazmat certification course manual

Radioactive waste technician training records

# Section 4OA1: Performance Indicator (PI) Verification

## **Document**

CH-PRI-SAMP-ROOM, "Sampling in the Nuclear Sample Room"

# Section 4OA2: Identification and Resolution of Problems

## Action Reports

AR 2002-2167 AR 2002 -2168 AR 2002-2194 AR 2003-2520 AR 2003-2521 AR 2004-0673 AR 2004-1315

# LIST OF ACRONYMS